

**Rio Algom
Rio Tinto**

RECEIVED

OCT 22 1975

Utah State Div. of Health
Environmental Health

October 16th, 1975.

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OCT 21 1975

OFFICE OF DIRECTOR
UTAH STATE HEALTH DIVISION

*EH -
Lyman
Mr. Jungley*

Dr. Lyman

Dr. Lyman J. Olsen,
Director of Health,
Division of Health,
44 Medical Drive,
Salt Lake City, UTAH. 84113.

Dear Dr. Olsen:

Thank you for your letter of October 10th in response to the tailings deposit at our uranium mine in South-east Utah. In our draft letter of undertaking forwarded to you in July, we proposed a deposit of \$20,000.00 for tailings maintenance when milling activity terminates. Your letter states you feel this should be \$50,000.00 and we are herewith submitting a revised draft to conform with your request.

We would be prepared to execute same on the advice that it is satisfactory to the Division of Health. As we are anxious to conclude any outstanding requirements for the milling licence, we are taking the liberty of sending a copy of same to Mr. W. T. Crow of the Nuclear Regulatory Commission and are attaching to you a copy of our letter to him at this time.

Sincerely,

R. D. Lord

R. D. Lord,
Vice President,
Research & Development.

RDL/mm
Encl.

Rio Algom
Rio Tinto

October 16th, 1975.

Mr. W. T. Crow,
Chief, Fuel Cycle Licensing Branch 1,
Division of Fuel Cycle and Material Safety,
U. S. Nuclear Regulatory Commission,
Washington, D. C. 20555.

Re: Docket 40-8084

Dear Mr. Crow:

Further to our earlier correspondence, the latest of which was to Mr. L. C. Rouse in April, we now have comment from Dr. Lyman Olsen, Division of Health, State of Utah, on our draft undertaking in respect to the tailings dam. Dr. Olsen has made a proposal for change which we have incorporated and forwarded to him. A copy of the draft is attached herewith for your interest, as this is we understand, one of the components of qualification for a licence. The paragraph which shows the change proposed by Dr. Olsen is on page three, paragraph two.

We would very much appreciate hearing from you as to the status of our licence at this time, and also that of the request for permission to use the second tailings area, which was prepared in 1974.

Sincerely,



RDL/mm
Encl.

R. D. Lord,
Vice President,
Research & Development.

BASIS OF UNDERTAKING TO DIVISION OF HEALTH, UTAH
BY RIO ALGOM CORPORATION, RIO ALGOM LIMITED

At its mill in San Juan County in South Utah, Rio Algom Corporation is in progress of depositing uranium tailings in a 15 acre area, and has provided an additional and adjoining storage area of approximately 26 acres. Rio Algom understands that on termination of milling activities such tailings areas are required to be stabilized against erosion and covered to maintain radiation within levels that meet applicable environmental standards. It has stated to the Atomic Energy Commission and since to the Nuclear Regulatory Commission that it is prepared to act responsibly in this connection, and specifically undertakes to meet the requirements as set out in the Atomic Energy Commission Regulatory Guide 3.23, November 1974 and the American National Standards Institute, ANSI-N313.1974.

The regulations prohibit, except as authorized by the Commission as stated in Section 20.105(a) of "Standards for Protection Against Radiation" (10 CFR Part 20), the use of licensed materials in such a manner as to create in any unrestricted area, radiation levels which, exceed 2 millirem per hour for continuous exposure.

At present, with 2 feet of neutral soil material covering a tailings area, the radiation readings at 3 feet above the fill area is .007 mR/hr. It is computed that a cover of neutral soil material to a depth of 12 inches or more results in a level of .014 mR/hr and well within the regulatory guidelines (AECR Guide 3.23) of 2 mR/hr. Approximately 66,000 cubic yards of cover is required, should both storage areas be fully used, and the cost of placement in 1975 dollars is \$136,000.

As the regulations require that uranium tailings deposits be stabilized for 50 years or more, safeguards against water erosion are necessary. Fortunately the Rio Algom deposits lie within a very small watershed of approximately 1 square mile. A diversion ditch is planned to bypass drainage from the greater part (385 acres) of the watershed outside the storage area. The yardage of this ditch, to be completed when operations terminate, is 25,000 cubic yards and the cost in 1975 dollars is \$56,700.

As the climate is arid precautions against wind erosion are also called for. Rio Algom intends that at least the upper layer of neutral cover on the tailings be native soil to support indigenous vegetation, which will be planted or seeded.

As restrictions to use of the site are required Rio Algom will erect four concrete markers, visible above surface and lettered "Buried Tailings - Radioactive - Site not approved for excavation or continuous occupation" or other designation as may be acceptable.

It is to be anticipated that inspection and a nominal amount of maintenance of the site will be required in the public interest. This may include removal of accumulations of debris or obstruction in the bypass ditch and possibly repair of soil cover. To provide for such remedial work, Rio Algom will deposit with the Division of Health, of the State of Utah, \$50,000 at the time milling activity terminates. The Division of Health will not be responsible, by virtue of this arrangement, for any different procedure determined at a future time, to be a final solution to the tailings pile problem.

As the duration of operations of the Rio Algom mill is uncertain at this time, the area of tailings to be stabilized is not known. It may be considerably less than that contemplated in the environmental statement. On the other hand, and aside from the interests of Rio Algom, if it should be desirable to operate the plant as a custom mill, the terminal work may be more - at some later date. For the above reasons, the earlier plan of posting a bond to cover the estimated terminal work does not appear applicable

to the situation. It is now proposed that Rio Algom Limited back an undertaking by Rio Algom Corporation to discharge its obligations relative to the tailing deposit at such time as conditions are appropriate for the work to be carried out.

FOR RIO ALGOM CORPORATION

By _____

By _____

FOR RIO ALGOM LIMITED

(SEAL)

By _____

By _____